

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 83-2

CITY AND COUNTY OF SAN FRANCISCO

RICHMOND-SUNSET PLANT AND RICHMOND SUNSET ZONE WET WEATHER DIVERSION STRUCTURES REQUIRING THE CITY AND COUNTY OF SAN FRANCISCO TO CEASE AND DESIST DISCHARGING WASTE FROM ITS RICHMOND SUNSET PLANT AND RICHMOND SUNSET ZONE WET WEATHER DIVERSION STRUCTURES CONTRARY TO REQUIREMENTS PRESCRIBED IN ORDER NOS. 79-129 AND 81-19, RESPECTIVELY BOTH NPDES PERMITS,

AND

THREATENING TO DISCHARGE WASTE FROM THE SOUTHWEST OCEAN OUTFALL CONTRARY TO REQUIREMENTS PRESCRIBED IN ORDER NO. 80-11, AN NPDES PERMIT

The California Regional Water Quality Control Board, San Francisco Bay Region finds that:

1. On December 6, 1974, this Board adopted Order No. 74-164, and NPDES (National Pollutant Discharge Elimination System) Permit prescribing discharge requirements covering the discharge of waste and pollutants by the City and County of San Francisco from its Richmond-Sunset Sewage Treatment Plant. The Board reissued the permit on October 16, 1979 in Order No. 79-129.
2. On March 16, 1976 this Regional Board adopted Order No. 76-23, an NPDES Permit, prescribing discharge requirements for the eight wet weather diversion structures in the Richmond-Sunset Sewerage Zone. The Board reissued the permit on April 15, 1981 in Order No. 81-19.
3. On January 20, 1976, this Board adopted Order No. 76-5 ordering the City and County of San Francisco to cease and desist from discharging waste or threatening to discharge waste contrary to requirements of Order No. 74-164.
4. On September 18, 1979, this Board adopted Order No. 79-120, amending Order No. 76-5 and ordering the City and County of San Francisco to cease and desist from discharging waste from Richmond Sunset Zone wet weather diversion structures contrary to requirements of Order No. 76-23.
5. On March 13, 1980, this Board adopted Order No. 80-11, and NPDES permit, prescribing discharge requirements for Ocean discharge through the proposed Southwest Ocean Outfall. The discharger has requested a waiver from the secondary treatment requirements contained in the Order. The Environmental Protection Agency has not yet acted on this request. The Board's order indicates that appropriate modifications to the order will be made subsequent to EPA action.

6. On May 15, 1980, the State Water Resources Control Board adopted Resolution No. 80-38, approving an exemption from the 75 percent suspended solids removal requirement of the ocean plan for the wet weather discharge through the Southwest Ocean Outfall.
7. There has been a substantial reduction in federal clean water grant funding available to California. The State Water Resources Control Board has not assigned sufficiently high priority for San Francisco's project to assure funding in consonance with adopted cease and desist order time schedules. Most projects would experience considerable delay in funding unless higher priority is assigned.
8. The current cease and desist order time schedules need to be revised to establish project priorities based upon maximum water quality benefit and realistically achievable schedules.
9. The City and County of San Francisco has proposed implementation of a minimum westside core system which would include the westside transport, westside pump station, ocean outfall, Richmond Sunset Plant and piping to connect these facilities. This system could be operated in July 1985 for dry weather and September 1986 for wet weather.
10. The minimum westside core, with a modification that would route the discharge from dewatering the westside transport to the Ocean Outfall, is an acceptable initial step towards compliance with this Board's requirements.
11. The City and County of San Francisco is violating or threatening to violate the following requirements of Order No. 79-129: Effluent Limitations for BOD (A.1.a), Grease and Oil (A.1.b.), Suspended Solids (A.1.c), Settleable Solids (A.1.d.), Toxicity Concentration (A.1.f), BOD and Suspended Solids removal (A.3.); Receiving Water Limitations for floating particulates (B.1.), Discoloration (B.2.), Light Transmittance (B.3.), Dissolved Oxygen (B.6.), pH (B.7.), Total Coliform (B.5.), Toxic and Deleterious Substances (B.13.); and Discharge Prohibition against discharge within 1000 feet offshore and with dilution less than 100:1 (C.1.).
12. The City and County of San Francisco is violating or threatening to violate the following requirements of Order No. 81-19: Discharge Prohibition A.1 (allowable overflows and overflow criteria).
13. The City and County of San Francisco is threatening to violate the following requirements of Order No. 30-11: Dry Weather Effluent Limitations (waste 001) for BOD (B.2.a.), Suspended Solids (B.2.c.), BOD and Suspended Solids removal (E.3.), Grease and Oil (B.2.b.), Settleable Solids (B.2.d.); Toxicity Concentration (B.2.f.); wet weather Effluent Limitations (waste 002 and 003) for Floating Material (C.1.), Settleable Solids (C.2.b.), Oil and grease (C.2.a.); and Receiving Water Limitations for floating Particulates (D.1.).
14. This action is an order to enforce waste discharge requirements previously adopted by the Board, this action is therefore categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15121 of the Resource Agency Guidelines.

15. On January 19, 1983, at a meeting starting at 9:30 a.m. in the Assembly Room, State Building, 1111 Jackson Street, Oakland, after due notice to the discharger, and all other affected persons, the Regional Board conducted a public hearing at which the discharger appeared and evidence was received concerning the discharges.

IT IS HEREBY ORDERED THAT:

- A. The City and County of San Francisco, cease and desist from discharging wastes or threatening to discharge waste contrary to requirements of Order No. 79-129 listed in paragraph 11. above, Order No. 81-19 listed in paragraph 12 above and Order No. 80-11 listed in paragraph 13 above in accordance with the time schedules contained within this Order.
- B. Compliance with this Board's discharge requirements of Order No. 79-129 with respect to: Prohibition against discharge within 1000 feet offshore and with dilution less than 100:1 (c.l.) and Order No. 81-19 with respect to: Discharge prohibitions against untreated overflows (A.I.) and nuisance (B.I.) for Vicente, Lincoln Way and Mile Rock diversion structures, shall be achieved according to the following time schedule:

<u>Task</u>	<u>Completion Date</u>
1. <u>Westside Transport</u>	
Complete construction	June 1, 1983
2. <u>Westside Pump Station</u>	
Advertise for construction bids	April 1, 1983
Award contract	August 1, 1983
Complete construction	March 1, 1986
3. <u>Ocean Outfall</u>	
Complete construction	March 1, 1985
4. <u>Richmond Sunset Plant Improvements</u>	
Submit documentation to SWRCB for concept approval	July 1, 1983
Start design	January 1, 1984
Complete design	January 1, 1985
Award construction contract	May 1, 1985
Complete construction	September 1, 1986
5. <u>Westside activation</u>	
Submit description of projects and time schedule	July 1, 1983
Commence operation of minimum westside core and achieve compliance for dry weather	July 1, 1985
Achieve compliance for wet weather	September 1, 1986

- C. Compliance with this Board's discharge requirements of Order No. 79-129 with respect to Effluent Limitations for BOD (A.1.a), Grease and Oil (A.1.b), Suspended Solids (A.1.c), Settleable Solids (A.1.d), Toxicity Concentration (A.1.f), BOD and Suspended Solids removal (A.3.); Receiving Water Limitations for floating particulates (B.1.), Discoloration (B.2.), Light transmittance (B.3.), Dissolved Oxygen (B.6.), pH (B.7), Total Coliform (B.5.), Toxic and Deleterious Substances (B.13.); shall be achieved according to the following time schedule:

Discharger intends to change discharge location from Mile Rock to the Southwest Ocean Outfall according to the time schedule in E. above. Order No. 80-11 is applicable to the new discharge location.

- D. Compliance with this Board's discharge requirements of Order No. 80-11 with respect to: Dry Weather Effluent Limitations (Waste 001) for BOD (B.2.a), Suspended Solids (B.2.c), BOD and Suspended Solids removal (B.3.), Grease and Oil (B.2.b), Settleable Solids (B.2.d); Toxicity Concentration (B.2.f.); Wet Weather Effluent Limitations (Waste 002 and 003) for Floating Material (C.1.), Settleable Solids (C.2.b.), Oil and Grease (C.2.a); and Receiving Water Limitations for Floating Particulate (D.1.), Deposition of inert solids (D.2.), Organic Material in Marine Sediments (D.9.), shall be achieved according to the following time schedule:

- |   |                            |
|---|----------------------------|
| 1. Submit proposed monitoring program for minimum Westside core | January 1, 1984            |
| 2. Submit analysis of compliance after 1st year of operation    | October 1, 1986            |
| 3. Submit plan and time schedule for full compliance            | January 1, 1987            |
| 4. Full compliance  | No later than July 1, 1988 |

- E. Compliance with this Board's discharge requirements of Order No. 81-19 with respect to: Discharge prohibitions against untreated overflows (A.1.) and nuisance (B.2.) for Lake Merced, Sea Cliff and Bakers Beach diversion structures, shall be achieved according to the following time schedule:

- | <u>Task</u>  | <u>Completion Date</u>     |
|--|----------------------------|
| 1. Submit plan and time schedule for full compliance | January 1, 1987            |
| 2. Full compliance                                   | No later than July 1, 1988 |

- F. The City and County of San Francisco is required to submit a report by June 1, 1983 of pump station operation to achieve minimum system overflows which includes:

- current list of all pump stations in service, future operational status, renovation plans and schedules

- physical route of pump station overflows
  - actual number of overflows at each pump station during the 1981-82 wet weather season (June 1981 - June 1982) based on actual pump station data
- G. The City and County of San Francisco is required to submit to the Regional Board by the 15th day of every month, a report, under penalty of perjury, on progress towards compliance with this Order. Said report shall include the status of progress made toward compliance with all tasks of this Order. If noncompliance or threatened noncompliance is reported the reasons for noncompliance and an estimated completion date shall be provided.
- H. Board Order Nos. 74-164, 76-23, 76-5, 77-62, 79-12, and 79-120 are hereby rescinded.
- I. If the City diligently pursues state and federal grant funding for eligible projects necessary to comply with this Order and a substantial portion of the grant funds are not available due to reasons beyond the City's control the Board will consider appropriate amendment of the time schedule prescribed in this Order.
- I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 19, 1983.

FRED H. DIERKER  
Executive Officer

REGIONAL WATER QUALITY CONTROL BOARD  
**SAN FRANCISCO BAY REGION**  
INTERNAL MEMO

TO: Fred H. Dierker  
Executive Officer

FROM: Teng-Chung Wu, Chief  
South Bay Division

DATE: January 18, 1983

SIGNATURE: Teng-chung Wu

SUBJECT: Statements by Williams T. Davoren of San Francisco Bay Institute  
Concerning San Francisco's Clean Water Projects

Mr. William T. Davoren submitted several statements and recommendations at Regional Board's December 15, 1982 meeting concerning San Francisco's Clean Water Projects.

These documents, all authored by Davoren, are:

1. Bayside, Westside, All Around the Town
  - A statement presented to the City and County of San Francisco Board of Supervisors Finance Committee, Sept. 29, 1982.
2. December 4, 1982 letter to 17 organizations plus 63 individuals regarding San Francisco's Sewage and EPA's New Secondary Waivers
3. Recommendations to the Regional Board dated December 15, 1982 concerning construction alternatives and priorities of the partially constructed Master Plan for Sewage Control (1974) of the City and County of San Francisco.

I have reviewed these documents and other pertinent technical reports and literatures and wish to discuss the main issues raised in Davoren's statements and his recommendations. (I will articulate the issue rather than directly quoting Davoren).

Main Issues Raised

1. South Bay has a poor flushing characteristics and the rate of exchange of South Bay water with the sea water becomes progressively poorer toward southern extremity.

A net counter-clockwise circulation exists in the South Bay which helps in the transport of freshwater into the South Bay on its westside and carries Bay waters out along the eastern side (see attached).

2. Therefore it is not logical to transport southward the Northpoint sewage to the Southeast Plant for treatment and disposal offshore of Islais Creek. Additionally waste loading at Southeast outfall area will increase as a result of transporting Northpoint Sewage to the Southeast Plant.

January 13, 1983

Davoren's Recommendations

Based on his analysis of the issues described above, and his perception of limited availability of federal and state construction grant funds for San Francisco project, Davoren makes the following recommendations:

1. the secondary effluent to the Hunter's Point plant should be transported to the outfall in Alcatraz Channel by placing a force main inside the large transport sewers already built within most of the alignment between Islais Creek and North Point;
2. when San Francisco does construct a force main or tunnel to carry the Hunters' Point plant's discharge to the master plan facilities located on the ocean, the secondary wastes from the Hunters' Point plant can be shifted to the ocean;
3. at that time, perhaps 15 or 20 years from today, the Islais-North Point main can be used for transporting and discharging the wetweather flows from the Islais Creek and Channel (Mission Creek) drainages to discharge with the other wetweather flows offshore North Point;
4. as an economy measure with environmental benefits, I suggest in the interim 15 or 20 years the wetweather flows of the Yosemite-Sunnydale drainages be collected and applied, after primary treatment, to create a deepwater marsh complex in the South Basin Canal.

Discussions

In mentioning how the lack of the grant funding may delay 15 to 20 years the construction of a cross-town transport project for transporting Bayside's treated dry weather effluent to the Southwest Ocean Outfall, Mr Davoren failed to recognize that the Congress has authorized  $\$200 \times 10^6$  grant funds each year for FY 1983, 1984 and 1985 for constructing projects to correct combined sewer overflows (CSO) in Marine Bays and Estuaries and appropriated  $\$30 \times 10^6$  for FY 1983. City of San Francisco, with support from the State and Regional Board, is preparing a grant application for these CSO monies to abate wetweather overflow problems in the Southeast area. It also proposes a cross-town transport project to transport Bayside's treated dry and weather flows for disposal through the Southwest Ocean outfall. With the combined effort of the City, its citizens, and federal and State regulatory agencies the correction of Southeast area's pollution problems may be obtained earlier than predicted by Mr. Davoren.

From the water quality considerations, there are two potential concerns regarding discharging all of the Bayside's treated dry weather effluent through the Southeast outfall:

First, its impacts on the receiving water oxygen. According to an EIS prepared by EPA and quoted by Mr. Davoren, the total BOD load at the Southeast outfall will increase from 12,700 lbs. per day to 20,800 pounds per day and this might cause a dissolved oxygen depression of 0.07 mg/l. This is not a significant impact and may not be measurable. A review of last year's monitoring data shows that recent BOD loading from Southeast primary plant were greater than estimated by EIS in 1974 and that there probably will be a net reduction in the BOD loadings to the Bay through the Southeast outfall even though the Southeast Secondary Plant takes in all dry weather flows from Bayside.

Second, discharge impacts on aquatic biota. In 1977 City's Consulting Engineer Brown and Caldwell, evaluated five Bay outfall alternatives and an ocean outfall and assessed their biological impacts. These five Bay outfall alternatives were located near Hunters Point, Islais Creek (present location), Mission Rock, Bay Bridge and North Point. Some of the conclusions of Brown and Caldwell assessment are:

1. No evidence of an adverse biological impact on marine organisms resulting from primary effluent discharge through the existing southeast outfall was obtained in the biological studies conducted to date.
2. Adequate initial dilution can be achieved for bayside dry weather effluent through any of the bay or ocean outfall alternatives, and, therefore, any of these alternatives would provide adequate protection to marine organisms in the vicinity of San Francisco.
3. Department of Fish and Game and others prefer an ocean outfall over a bay outfall on the basis of a more conservative interpretation of the results of the toxicity experiments carried out to date and a desire to minimize the risk of a detrimental biological impact which cannot be predicted at present. However, our judgment is that the likelihood of such a detrimental impact is small.

There is no general agreement among the scientists as to whether the discharge of treated wastewaters to the Bay has or is causing lethal or sublethal effects of aquatic organisms. The on-going South Bay Dischargers Authority's 5-year monitoring program, EDDA's biological monitoring program and the proposed Aquatic Habitat program are all designed to shed light on this issue.

Based on the above discussions, I question the need for transporting Southeast plant's secondary effluent northward for disposal at North Point area for the interim period as proposed by Mr. Davoren.

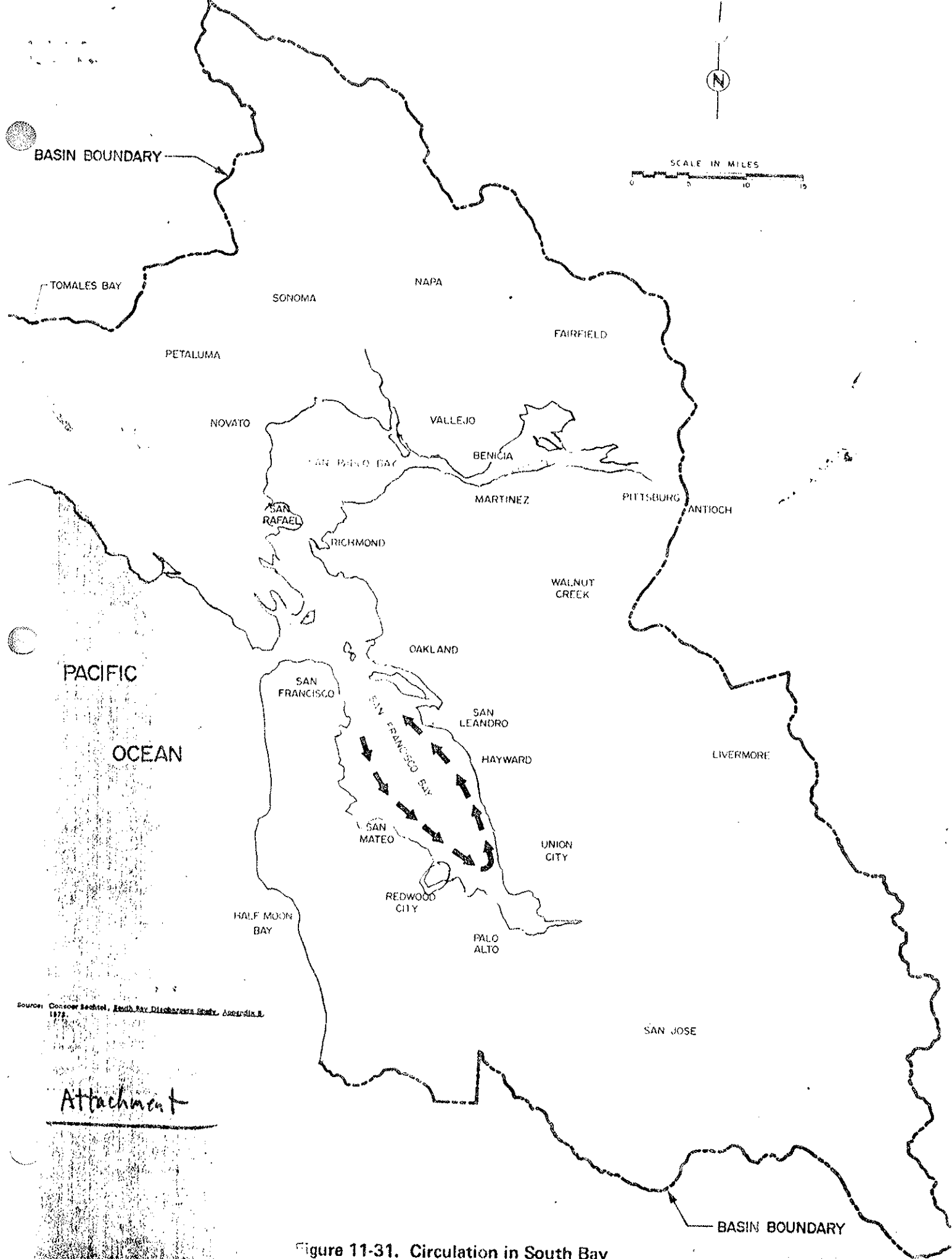
Fred H. Dierker  
Executive Officer

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January 18, 1983

As for Davoren's proposals for utilizing City's Southeast area wet weather flows to create a freshwater marsh in the South Basin canal or in Bair Island (near Redwood City), they would be in conflict with Regional Board's Marsh Policy because they would use marshes as treatment device, which is not allowed in the policy. A more viable proposal utilizing EBDA's secondary effluent to create a freshwater marsh in Hayward will be recommended for Board consideration in the near future.

Attachment



Source: Cooper Sechtel, *South Bay Discharge Study*, Appendix B, 1972.

Figure 11-31. Circulation in South Bay